

ABSTRACT

A method forms a semiconductor device from a device that includes a first source region, a first drain region, and a first fin structure that are separated from a second source region, a second drain region, and a second fin structure by an insulating layer. The method may include forming a dielectric layer over the device and removing portions of the dielectric layer to create covered portions and bare portions. The method may also include depositing a gate material over the covered portions and bare portions, doping the first fin structure, the first source region, and the first drain region with a first material, and doping the second fin structure, the second source region, and the second drain region with a second material. The method may further include removing a portion of the gate material over at least one covered portion to form the semiconductor device.